

C07 ORGANIC CHEMISTRY (such compounds as the oxides, sulfides, or oxysulfides of carbon, cyanogen, phosgene, hydrocyanic acid or salts thereof C01; products obtained from layered base-exchange silicates by ion-exchange with organic compounds such as ammonium, phosphonium or sulfonium compounds or by intercalation of organic compounds C01B 33/44; macromolecular compounds C08; dyes C09; fermentation products C12; fermentation or enzyme-using processes to synthesise a desired chemical compound or composition or to separate optical isomers from a racemic mixture C12P; production of organic compounds by electrolysis or electrophoresis C25B 3/00, C25B 7/00) [2]

C07B GENERAL METHODS OF ORGANIC CHEMISTRY; APPARATUS THEREFOR (preparation of carboxylic acid esters by telomerisation C07C 67/47; telomerisation C08F)

- (1) In this subclass, the functional group which is present already in some residue being introduced and is not substantially involved in a chemical reaction, is not considered as the functional group which is formed or introduced as a result of the chemical reaction. [4]
- (2) In this subclass, the following term is used with the meaning indicated:
– “separation” means separation only for the purposes of recovering organic compounds. [4]
- (3) When classifying in this subclass, classification is also made in group B01D 15/08 insofar as subject matter of general interest relating to chromatography is concerned. [8]
- (4) In this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place according to the type of reaction employed, noting the bond or the functional group which is formed or introduced as a result of the chemical reaction. [4]

REACTIONS WITHOUT FORMATION OR
INTRODUCTION OF FUNCTIONAL
GROUPS CONTAINING HETERO ATOMS

Change of bond type between
carbon atoms already directly
linked..... 35/00
Formation of new or disconnection
of existing carbon-to-carbon bonds..... 37/00

REACTIONS WITH FORMATION OR
INTRODUCTION OF FUNCTIONAL
GROUPS CONTAINING HETERO ATOMS

Halogenation..... 39/00
Oxygen-containing groups 41/00
Nitrogen-containing groups..... 43/00

Sulfur-containing groups..... 45/00

Other groups..... 47/00

GRIGNARD REACTIONS..... 49/00

INTRODUCTION OF PROTECTING OR
ACTIVATING GROUPS NOT COVERED BY
THE PRECEDING GROUPS 51/00

ASYMMETRIC SYNTHESSES..... 53/00

RACEMISATION, INVERSION..... 55/00

SEPARATION, PURIFICATION,
STABILISATION, USE OF ADDITIVES..... 57/00, 63/00

INTRODUCTION OF ISOTOPES 59/00

OTHER GENERAL METHODS..... 61/00

31/00 Reduction in general [4]

33/00 Oxidation in general [4]

37/04 . Substitution [4]

37/06 . Decomposition, e.g. elimination of carbon dioxide [4]

37/08 . Isomerisation [4]

37/10 . Cyclisation [4]

37/12 . . Diels-Alder reactions [4]

**Reactions without formation or introduction of functional
groups containing hetero atoms [4]**

35/00 Reactions without formation or introduction of
functional groups containing hetero atoms, involving
a change in the type of bonding between two carbon
atoms already directly linked [4]

35/02 . Reduction [4]

35/04 . Dehydrogenation [4]

35/06 . Decomposition, e.g. elimination of halogens, water or
hydrogen halides [4]

35/08 . Isomerisation [4]

37/00 Reactions without formation or introduction of
functional groups containing hetero atoms, involving
either the formation of a carbon-to-carbon bond
between two carbon atoms not directly linked
already or the disconnection of two directly linked
carbon atoms [4]

37/02 . Addition [4]

**Reactions with formation or introduction of functional groups
containing hetero atoms [4]**

39/00 Halogenation [4]

41/00 Formation or introduction of functional groups
containing oxygen [4]

41/02 . of hydroxy or O-metal groups [4]

41/04 . of ether, acetal or ketal groups [4]

41/06 . of carbonyl groups [4]

41/08 . of carboxyl groups or salts, halides or anhydrides
thereof [4]

41/10 . . Salts, halides or anhydrides of carboxyl groups [4]

41/12 . of carboxylic acid ester groups [4]

41/14 . of peroxy or hydroperoxy groups [4]

C07B

- 43/00 Formation or introduction of functional groups containing nitrogen [4]**
43/02 . of nitro or nitroso groups [4]
43/04 . of amino groups [4]
43/06 . of amide groups [4]
43/08 . of cyano groups [4]
43/10 . of isocyanate groups [4]
- 45/00 Formation or introduction of functional groups containing sulfur [4]**
45/02 . of sulfo or sulfonyldioxy groups [4]
45/04 . of sulfonyl or sulfinyl groups [4]
45/06 . of mercapto or sulfide groups [4]
- 47/00 Formation or introduction of functional groups not provided for in groups C07B 39/00 C07B 45/00 [4]**
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- 49/00 Grignard reactions [4]**
- 51/00 Introduction of protecting groups or activating groups, not provided for in groups C07B 31/00 C07B 49/00 [4]**

- 53/00 Asymmetric syntheses [4]**
- 55/00 Racemisation; Complete or partial inversion [4]**
- 57/00 Separation of optically-active compounds [4]**
- 59/00 Introduction of isotopes of elements into organic compounds [4]**
- 61/00 Other general methods [4]**
61/02 . Generation of organic free radicals [4]

Purification; Separation; Stabilisation [4]

- 63/00 Purification; Separation** (separation of optically-active compounds C07B 57/00); **Stabilisation; Use of additives [4]**
63/02 . by treatment giving rise to a chemical modification [4]
63/04 . Use of additives [4]